

**January 2002**

**Global Solar Radiation on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley PSP**  
**Watt-Hours per Square Meter**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	0	0	5	46	173	223	389	488	437	352	236	74	4	0	0	0	0	0	0	2427
2	0	0	0	0	0	0	0	8	52	66	381	276	307	384	216	127	49	7	0	0	0	0	0	0	1874
3	0	0	0	0	0	0	0	6	37	124	157	203	208	197	175	98	46	8	0	0	0	0	0	0	1260
4	0	0	0	0	0	0	0	7	64	238	397	485	516	478	388	245	87	7	0	0	0	0	0	0	2912
5	0	0	0	0	0	0	0	6	44	122	302	475	487	366	262	188	89	9	0	0	0	0	0	0	2351
6	0	0	0	0	0	0	0	0	6	28	56	102	194	43	106	84	15	3	0	0	0	0	0	0	638
7	0	0	0	0	0	0	0	1	15	46	79	79	98	80	48	47	12	2	0	0	0	0	0	0	509
8	0	0	0	0	0	0	0	5	20	100	373	497	528	493	397	246	103	12	0	0	0	0	0	0	2774
9	0	0	0	0	0	0	0	8	70	250	387	469	491	469	388	250	90	9	0	0	0	0	0	0	2880
10	0	0	0	0	0	0	0	2	11	26	82	114	84	113	72	39	12	1	0	0	0	0	0	0	557
11	0	0	0	0	0	0	0	2	24	116	209	474	260	210	287	195	92	9	0	0	0	0	0	0	1881
12	0	0	0	0	0	0	0	6	145	351	423	498	470	388	263	149	55	7	0	0	0	0	0	0	2756
13	0	0	0	0	0	0	0	9	64	245	434	471	536	502	414	274	104	4	0	0	0	0	0	0	3059
14	0	0	0	0	0	0	0	8	114	177	217	314	421	338	267	128	68	7	0	0	0	0	0	0	2060
15	0	0	0	0	0	0	0	5	49	126	255	399	403	438	406	277	116	16	0	0	0	0	0	0	2490
16	0	0	0	0	0	0	0	10	64	185	330	433	518	467	313	147	90	16	0	0	0	0	0	0	2573
17	0	0	0	0	0	0	0	4	40	124	214	320	374	265	320	244	68	10	0	0	0	0	0	0	1982
18	0	0	0	0	0	0	0	2	25	86 ?	?	?	550 ?	529	436	294	127	20	0	0	0	0	0	0	2068 ?
19	0	0	0	0	0	0	0	1	6	25	42	70	107	68	52	17	13	2	0	0	0	0	0	0	403
20	0	0	0	0	0	0	0	6	49	140	365	548	489	487	435	253	103	14	0	0	0	0	0	0	2889
21	0	0	0	0	0	0	0	3	33	193	409	490	462	448	401	311	135	21	0	0	0	0	0	0	2905
22	0	0	0	0	0	0	0	8	138	289	429	522	562	537	431	281	104	29	0	0	0	0	0	0	3330
23	0	0	0	0	0	0	0	4	17	39	73	71	72	54	50	32	11	0	0	0	0	0	0	0	472
24	0	0	0	0	0	0	0	19	27	41	115	191	183	168	115	69	24	3	0	0	0	0	0	0	955
25	0	0	0	0	0	0	0	6	70 ?	?	?	?	?	?	?	338 ?	102 ?	25	0	0	0	0	0	0	542 ?
26	0	0	0	0	0	0	0	8	?	?	?	?	?	?	?	353 ?	96 ?	23	0	0	0	0	0	0	481 ?
27	0	0	0	0	0	0	0	8	?	?	?	?	?	?	?	320 ?	151	23	0	0	0	0	0	0	502 ?
28	0	0	0	0	0	0	0	21	104	296	418	531	570	540	451	320	155	31	0	0	0	0	0	0	3437
29	0	0	0	0	0	0	0	8	42	171	327	239	389	378	355	214	97	27	0	0	0	0	0	0	2248
30	0	0	0	0	0	0	0	14	97	236	512	565	560	512	446	273	82	15	0	0	0	0	0	0	3311
31	0	0	0	0	0	0	0	12	122	294	431	569	442	453	460	324	162	30	0	0	0	0	0	0	3300
Avg	0	0	0	0	0	0	0	7	55	154	283	363	385	352	297	206	82	13	0	0	0	0	0	0	1994
S D	0	0	0	0	0	0	0	5	39	94	142	171	166	167	140	101	42	9	0	0	0	0	0	0	1050
S/A	0	0	0	0	0	0	0	0.69	0.71	0.61	0.5	0.47	0.43	0.47	0.49	0.51	0.7	0	0	0	0	0	0	0	0.53
Min	0	0	0	0	0	0	0	0	6	25	42	70	72	43	48	17	12	1	0	0	0	0	0	0	403
Max	0	0	0	0	0	0	0	21	145	351	512	569	570	540	460	353	162	31	0	0	0	0	0	0	3437
n	0	0	0	0	0	0	0	148	345	329	324	324	326	336	336	346	357	177	0	0	0	0	0	0	3351

Daylight Data Recovery: 0.0% missing; 8.8% exceed the 15% QC threshold -- 3674 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 25821F3    Calibration Factor: 9.020 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

**January 2002**

**Direct Normal Solar Radiation**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley NIP**  
**Watt-Hours per Square Meter**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	0	0	0	0	37	19	377	902	792	730	816	442	90	0	0	0	0	0	0	4205
2	0	0	0	0	0	0	0	0	1	10	501	154	215	510	15	15	1	0	0	0	0	0	0	0	1421
3	0	0	0	0	0	0	0	0	0	0	1	3	2	2	3	0	0	0	0	0	0	0	0	0	12
4	0	0	0	0	0	0	0	0	84	590	914	978	993	982	939	832	588	248	0	0	0	0	0	0	7148
5	0	0	0	0	0	0	0	0	0	8	334	793	702	399	133	414	258	70	0	0	0	0	0	0	3110
6	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	16
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	600	968	993	984	905	693	657	317	0	0	0	0	0	0	6118
9	0	0	0	0	0	0	0	0	201	727	844	851	795	858	856	781	457	52	0	0	0	0	0	0	6422
10	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11	0	0	0	0	0	0	0	0	2	95	126	672	132	34	270	279	379	163	0	0	0	0	0	0	2152
12	0	0	0	0	0	0	0	0	562	880	983	1004	699	354	125	25	1	0	0	0	0	0	0	0	4632
13	0	0	0	0	0	0	0	0	68	322	749	822	980	971	934	860	558	24	0	0	0	0	0	0	6288
14	0	0	0	0	0	0	0	0	363	103	32	91	240	130	199	19	15	0	0	0	0	0	0	0	1190
15	0	0	0	0	0	0	0	0	2	0	161	534	429	699	866	821	607	258	0	0	0	0	0	0	4377
16	0	0	0	0	0	0	0	0	7	65	260	603	923	800	403	54	73	111	0	0	0	0	0	0	3300
17	0	0	0	0	0	0	0	0	0	0	7	96	168	93	311	363	5	0	0	0	0	0	0	0	1044
18	0	0	0	0	0	0	0	0	0	103 ?	?	?	968 ?	983	949	868	673	289	0	0	0	0	0	0	4834 ?
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	7	352	831	641	668	634	189	95	2	0	0	0	0	0	0	3419
21	0	0	0	0	0	0	0	0	0	162	635	542	508	565	619	835	652	268	0	0	0	0	0	0	4787
22	0	0	0	0	0	0	0	0	591	831	902	952	996	1005	750	390	174	174	0	0	0	0	0	0	6765
23	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
24	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
25	0	0	0	0	0	0	0	0	0 ?	?	?	?	?	?	?	895 ?	5 ?	2	0	0	0	0	0	0	902 ?
26	0	0	0	0	0	0	0	0	0	1	?	?	?	?	?	869 ?	6 ?	4	0	0	0	0	0	0	881 ?
27	0	0	0	0	0	0	0	0	1	2 ?	?	?	?	?	?	869 ?	772	423	0	0	0	0	0	0	2067 ?
28	0	0	0	0	0	0	0	2	290	737	768	904	917	894	856	802	627	255	0	0	0	0	0	0	7052
29	0	0	0	0	0	0	0	0	32	193	207	44	207	174	276	129	14	10	0	0	0	0	0	0	1285
30	0	0	0	0	0	0	0	2	265	447	736	764	671	573	584	528	64	25	0	0	0	0	0	0	4659
31	0	0	0	0	0	0	0	1	439	749	833	814	272	592	856	763	617	233	0	0	0	0	0	0	6169
Avg	0	0	0	0	0	0	0	0	94	202	369	474	478	467	436	423	250	97	0	0	0	0	0	0	3041
S D	0	0	0	0	0	0	0	1	175	301	364	397	393	389	375	373	285	126	0	0	0	0	0	0	2526
S/A	0	0	0	0	0	0	0	2.58	1.87	1.49	0.99	0.84	0.82	0.83	0.86	0.88	1.14	1.29	0	0	0	0	0	0	0.83
Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	2	591	880	983	1004	996	1005	949	895	772	423	0	0	0	0	0	0	7148
n	0	0	0	0	0	0	0	149	369	347	324	323	326	336	336	346	357	177	0	0	0	0	0	0	3391

Daylight Data Recovery: 0.0% missing; 7.7% exceed the 15% QC threshold -- 3674 total daylight measurements.

Instrument: Eppley NIP    Serial Number: 17664E6    Calibration Factor: 8.480 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

**January 2002**

**Diffuse Solar Radiation (Shadow Band) on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley PSP**  
**Watt-Hours per Square Meter**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	0	0	5	44	159	208	209	70	88	85	40	21	3	0	0	0	0	0	0	932
2	0	0	0	0	0	0	0	7	50	57	133	182	185	143	205	119	47	7	0	0	0	0	0	0	1134
3	0	0	0	0	0	0	0	6	35	119	149	192	200	190	167	94	44	8	0	0	0	0	0	0	1204
4	0	0	0	0	0	0	0	6	48	73	54	54	56	50	44	37	20	5	0	0	0	0	0	0	446
5	0	0	0	0	0	0	0	6	41	115	161	110	145	179	206	73	53	9	0	0	0	0	0	0	1098
6	0	0	0	0	0	0	0	0	6	26	55	101	178	42	103	83	14	2	0	0	0	0	0	0	611
7	0	0	0	0	0	0	0	0	14	45	76	77	96	78	46	46	12	2	0	0	0	0	0	0	491
8	0	0	0	0	0	0	0	4	18	96	133	63	62	57	59	64	23	7	0	0	0	0	0	0	587
9	0	0	0	0	0	0	0	8	36	57	63	78	99	78	62	46	26	7	0	0	0	0	0	0	560
10	0	0	0	0	0	0	0	2	11	25	80	111	82	110	69	38	11	1	0	0	0	0	0	0	540
11	0	0	0	0	0	0	0	2	23	96	166	182	191	191	188	119	42	6	0	0	0	0	0	0	1206
12	0	0	0	0	0	0	0	5	34	58	48	42	118	207	201	139	53	7	0	0	0	0	0	0	912
13	0	0	0	0	0	0	0	9	56	149	144	88	61	56	49	39	22	4	0	0	0	0	0	0	677
14	0	0	0	0	0	0	0	7	65	146	198	260	292	273	175	120	65	7	0	0	0	0	0	0	1610
15	0	0	0	0	0	0	0	4	45	122	185	145	185	100	62	47	31	9	0	0	0	0	0	0	936
16	0	0	0	0	0	0	0	11	60	154	202	132	61	84	141	129	74	12	0	0	0	0	0	0	1060
17	0	0	0	0	0	0	0	4	38	118	207	272	280	222	183	131	65	9	0	0	0	0	0	0	1530
18	0	0	0	0	0	0	0	1	23	85 ?	142	159	128	67	51	42	28	9	0	0	0	0	0	0	735
19	0	0	0	0	0	0	0	0	5	24	41	69	104	66	50	16	12	2	0	0	0	0	0	0	389
20	0	0	0	0	0	0	0	6	47	133	206	122	188	164	170	186	83	13	0	0	0	0	0	0	1317
21	0	0	0	0	0	0	0	2	31	147	140	222	201	169	153	63	34	11	0	0	0	0	0	0	1172
22	0	0	0	0	0	0	0	8	32	40	45	49	47	47	117	156	75	19	0	0	0	0	0	0	634
23	0	0	0	0	0	0	0	4	16	37	70	69	70	51	48	48	31	11	0	0	0	0	0	0	456
24	0	0	0	0	0	0	0	18	26	40	112	184	178	163	114	67	23	3	0	0	0	0	0	0	928
25	0	0	0	0	0	0	0	6	44 ?	?	?	?	?	?	?	39 ?	22 ?	9	0	0	0	0	0	0	120 ?
26	0	0	0	0	0	0	0	7	35	49	?	?	?	?	?	34 ?	17 ?	5	0	0	0	0	0	0	147 ?
27	0	0	0	0	0	0	0	8	36	48 ?	?	?	?	?	?	27 ?	18	5	0	0	0	0	0	0	140 ?
28	0	0	0	0	0	0	0	22	49	70	82	71	76	82	76	56	40	16	0	0	0	0	0	0	639
29	0	0	0	0	0	0	0	7	35	102	240	212	270	278	223	167	91	26	0	0	0	0	0	0	1651
30	0	0	0	0	0	0	0	13	51	83	187	163	187	212	186	84	66	14	0	0	0	0	0	0	1247
31	0	0	0	0	0	0	0	11	44	58	66	137	268	137	68	60	41	15	0	0	0	0	0	0	905
Avg	0	0	0	0	0	0	0	6	35	84	128	134	146	128	118	78	39	8	0	0	0	0	0	0	839
S D	0	0	0	0	0	0	0	5	15	43	62	66	75	71	62	46	23	6	0	0	0	0	0	0	418
S/A	0	0	0	0	0	0	0	0.76	0.44	0.51	0.48	0.49	0.52	0.55	0.53	0.59	0.59	0.67	0	0	0	0	0	0	0.5
Min	0	0	0	0	0	0	0	0	5	24	41	42	47	42	44	16	11	1	0	0	0	0	0	0	120
Max	0	0	0	0	0	0	0	22	65	159	240	272	292	278	223	186	91	26	0	0	0	0	0	0	1651
n	0	0	0	0	0	0	0	146	369	349	336	335	335	336	336	346	357	177	0	0	0	0	0	0	3423

Daylight Data Recovery: 0.0% missing; 6.8% exceed the 15% QC threshold -- 3674 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 17860F3    Calibration Factor: 7.010 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.